Squak Mountain Estates – Four Lot Short Plat
Project Narrative for Pre-Application Meeting
May 5, 2021

Permit History

The subject property has been the subject to preliminary plat and preliminary short plat pre-application discussions since 2007. The most recent activity being Issaquah files SP17-00006 and PRE18-00001. Those previous proposals assumed the need and a plan for a full public road in anticipation of ultimately subdividing the property into multiple lots as allowed by the SF-S (Single Family – Suburban) Zone. The representation of such a public road on preliminary plans showed a vast degree of grading and enormous retaining walls that appeared challenging in both cost effectiveness and constructability.

This proposal request could be considered as response or revision to the 2017 short plat proposal, SP17-00006; or it can be considered as a new application for a short plat as it takes an entirely new approach to subdividing this property. This proposals' approach is first and foremost to short plat the property into ONLY 4 lots with no plan for future subdivision. The design approach is to minimize land disturbance by utilizing the alignment and width of the existing private driveway and haul road on the site to the feasible and practical extent possible. This limited land disturbance approach to the short plat would create four (4) large estate lots. Future building permits would be carefully designed to fit the ground to minimize hillside disturbance once again, while creating breathtaking views and privacy.

Site Characteristics and Overall Project Description

The site is located in the City of Issaquah on the eastern side of Squak Mountain on King County Tax Parcel 3324069508. The project site is undeveloped and is 19.5 Acres (871,200 square feet) in size. It is zoned SF-S (Single Family Suburban) with an allowed density of 4.5 DU/Acre. The current proposal is to short plat the site into four (4) single family residential lots with the remaining site area placed in an access/utility and open space tract, and two (2) critical area tracts.

The site is located on the east side of Squak Mountain and site topography consists of slopes ranging from approximately 10% to over 50%. As such, in order to achieve the 4.5 DU/Acre density allowed by the zoning, significant grading would be required across the entire site which has been shown on previous proposals. The proposal for a four lot single family residential short plat minimizes the land disturbance that would otherwise be required to achieve higher densities.

Critical areas are located on-site and adjacent to the site and include steep slopes, wetlands, and streams. Cabin Creek is located near the north boundary of the site and is classified as a Class 2 with Salmonids stream per the City of Issaquah Classifications of Issaquah Streams Map Figure 3-4 and further defined in the Issaquah Municipal Code IMC 18.10.780. Additionally, there are Class III wetlands and streams/un-named drainage tributaries located in the south west corner of the site that are proposed to be in a critical area tract.

Four (4) future single family residential lots / building sites are proposed in the southern part of the property, at the higher elevations on site to take advantage of territorial views, and the topography in this area has more gradual slopes. The preliminary design approach for locating the lots in this area and providing access to the lots is driven by reducing and limiting impacts from clearing and grading activities by minimizing land disturbance with future site development. The preliminary design also utilizes existing surface features, i.e. graded haul road and a concrete driveway in order to achieve this goal. See the Squak Mountain Estates - Four Lot Short Plat Overall Plan exhibit submitted with this pre-application package.

The site is accessed directly from Sunset Place SW via an existing concrete/asphalt driveway located in a 30' Ingress, Egress and Utility Easement (KC Recording #7303220399) over an adjacent ownership (Parcel # 3800900120) located between the subject site and Sunset Place SW. The concrete driveway extends into the site and up the sloped hillside. A secondary access gravel haul road meanders up the hillside and terminates along the southeast boundary of the site. A portion of this existing gravel haul road has been incorporated into the design approach for purposes of aligning the private driveway access to the future residential lots of the proposed short plat. Please the detailed discussion regarding the preliminary design approach below.

Existing Driveway / Haul Road

The site does not front existing public roadway. An existing concrete driveway provides access to the site from Sunset Place SW through a 30' access and utility easement across the adjacent property to the east (Parcel # 3800900120). The driveway extends approximately 1,100+ L.F. and is recognized by the City as access to an existing residential home to the west of the site, Parcel # 3324069478. Parcel # 3324069478 has been the subject to numerous applications ranging from rebuilding and replacing the single-family residence with an accessory dwelling, to extending water and power to the residence within this driveway corridor. Widths of the driveway range from 9 ' to 11' wide and grades range from typically greater than 15% to 30%. There is also an existing dirt/gravel haul road that spurs from the driveway providing access to the upper central portions of the site. Widths and grades of the haul road are similar to those of the concrete driveway, however the slope averages approximately 17%.

The existing road has been in place for some time and the concrete surface is broken and overgrown with tree roots. There are large trees atop the cut embankments significantly leaning over the road creating a potentially hazardous condition should those trees topple or slide. The existing fill embankments appear stable but are within proximity of Cabin Creek in places should the road ever fail and slide.

Proposed Project Access / Driveway

In order to minimize land disturbance and grading and avoiding potential impacts of such clearing and grading on the steep slopes and Cabin Creek, the project proposes, where possible, to follow the existing driveway and haul road utilizing a combination of standards for safety and drivability

but without the burden of full roadway width and grade constraints. The standards for the proposed design are a combination of:

- Issaquah Municipal Code (IMC) 16.06.070 requirement for a 20-foot unobstructed width for fire apparatus access roads,
- Issaquah Street Standards (ISS) requirement for a two-way driveway to maintain a width between 12-feet and 20-feet,
- Horizontal alignment based on Issaquah Street Standards for low-speed curves utilizing a 15-mph design speed,
- Grade exceeding 15%, generally averaging approximately 17% with slopes up to 20% for no more than approximately 200-feet in length, structures will be required to have approved fire sprinkler systems,
- King County Fire Code requirements for fire access roads requiring a minimum inside radius of 20 feet and outside minimum radius of 40 feet,
- Pullouts consistent with King County Fire Code 17.04.370 provided approximately every 300' with 10-foot with and 35-foot length,
- A hammerhead turnaround at the first feasible location approximately 750 feet from Sunset Place SW,
- A one-way loop turnaround at the terminus of the road in lieu of a cul-de-sac or hammerhead turnaround,
- All vertical transitions are smooth vertical curves based on 15mph design speed,
- Reduced grades at low-speed curves where feasible,
- Guardrail per ISS section Design H.2. Guardrails, Traffic Barriers and Other Safety Devices,
- Individual lot access shall be designed to facilitate vehicle turnaround where feasible,
- Clearly visible address markers at the start of the access and along the access at lot entry points.

Variance from Issaquah Standards

The proposed access generally follows the existing driveway and haul road alignment in order to minimize grading impacts and site disturbance to adjacent critical areas by following the existing driveway and haul road slopes. However, to follow the existing driveway and haul road, variances to ISS and IMC as described below are anticipated to be required for the private driveway.

- A variance to IMC 16.06.070 Amendments to International Fire Code Section 503, Fire Apparatus Access Roads, to allow for access gradients exceeding 15 percent, with sections of 20 percent slope for a maximum of ±200 feet. This variance requires approval from fire marshal and all structures to have an approved sprinkler system.
- A variance to ISS Section Design M.1 and M.2 street end requirements and design standards may be required. ISS Section Design M.1 describes the applicability of cul-de-sacs and hammerhead street ends. As the proposed driveway end is a loop, a variance Design

Section M.1 to allow a looped driveway end may be required. Similarly, a variance to ISS Section Design M.2 to allow for slopes greater than 8 percent within the proposed driveway end (looped alignment) may be required. Typically, the 8 percent slope requirement is for cul-de-sac or hammerhead type street ends. The ISS Section does not discuss private driveways.

- A variance to IMC 18.07.110.9 to allow the surface grade of any artificially filled area above a retaining wall to be non-level from the top of the retaining wall (remove requirement for level area above fill walls equal to the height of the wall above proposed structural earth walls #2 and #3).
- A variance to IMC 18.07.110.9.d and 18.07.110.9.e to allow for walls greater than 6' within the building setback. These variances are needed for the proposed soldier pile wall adjacent to the proposed driveway as this proposed wall crosses the east property line.

Grading and Retaining Walls

In addition to following the alignment of the existing driveway and haul road, the alignment of the proposed access was located to minimize grading impacts by using cut and fill walls. A previous Geotechnical report for this project recommended that cut rockeries have a maximum of 12 feet in height. As cut walls are easier to construct and maintain, the proposed alignment was located such that the access could be constructed with a cut wall on the uphill side and little to no fill on the downhill side where feasible. This results in most of the proposed walls for the project being cut rockeries with a height of 12 feet of less. However, existing topography near the east boundary requires a cut wall adjacent to the access with heights in excess of 12 feet and a maximum height of 17.5 feet. A soldier pile wall is proposed for this area. Locating the access to the north in this area to reduce the cut wall height is not desirable as it would result in a fill wall and greater disturbance to the critical area buffer adjacent to Cabin Creek. There are also locations where a fill slope would not catch existing grade within a reasonable distance of the road. At these locations structural fill walls are proposed. All structural fill walls would have heights less than 5.5 feet and are proposed to be segmental block walls (Redi-Rock or similar). Guardrails are proposed alongside large portions of the driveway per ISS Design H.2 and adjacent to all fill wall locations.

Stormwater Management

Storm water is proposed to be collected through catch basins located in the center of the driveway with a vault being located at the first turnaround. Due to the limitations regarding the location and size of the stormwater vault, and limitations in impervious surface coverage; native growth retention credits, and/or independent flow on a lot-by-lot basis may be required. Water quality for the PGIS of the driveway is proposed to be provided by a cartridge system located downstream of the vault.

Sewer and Water

Water is proposed to be extended within the new driveway corridor with a booster pump station located approximately at the divide between the 480 and 625 pressure zones to serve the proposed lots lying within the 625 pressure zone. Fire sprinkler systems would likely be required in all future homes.

Sewer connections for the lots are proposed to be a low-pressure sewer system (EOne or similar). Individual grinder pump on each lot is proposed to connect to a central force main running the length of the driveway before terminating in a traditional gravity main near the east property boundary. A force main is preferred as it would be easier to construct and maintain when compared to a traditional gravity system.